

STATE OF COLORADO





1960

ANNUAL REPORT

DEPARTMENT OF NATURAL RESOURCES

COAL MINE INSPECTION DIVISION



STATE OF COLORADO



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COAL MINE INSPECTION DIVISION

CONR M C6 1960 C.2

LETTER OF TRANSMITTAL

April 1, 1961

To His Excellency Steve McNichols Governor of Colorado

Sir:

It is an honor to submit to you the Annual Report of the State Coal Mine Inspection Division, Department of Natural Resources of Colorado, for the year ending December 31, 1960.

Respectfully,

THOMAS ALLEN Chief Inspector of Coal Mines

Approved:

Edward L. Clark Director of Natural Resources



PERSONNEL OF DEPARTMENT

CHIEF COAL MINE INSPECTOR - THOMAS ALLEN

Office - 306 State Services Bldg. Denver 3, Colorado

Telephone - AC 2-9911

Ext. 2616

Home - 1285 Albion St., Denver 20,

Telephone - FR 7-5572

DEPUTY INSPECTORS - (Counties within each district)

Dist. #1 - DONALD HASKE - 4561 Perry St., Denver 12 Telephone - GR 7-9295 (El Paso, Fremont, Jackson and Weld)

Dist. #2 - OSCAR T. RICE - 401 State Street, Trinidad
Telephone - VIctor 6-2634
(Huerfano and Las Animas)

Dist. #3 - GRANT McCONNELL - P.O. Box 385, New Castle Telephone - New Castle 984-2370 (Garfield, Moffat, Pitkin, Rio Blanco and Routt)

Dist. #4 - JOHN J. RODDY - 1404 White Avenue, Grand Junction Telephone - CHapel 2-5915 (Delta, Gunnison, La Piata, Mesa, and Montrose)

GENERAL OFFICE

Administrative Assistant Veda Burford

1610 Magnolia St., Denver 20

FRemont 7-4317

Account Clerk Evelyn Miller

3357 W. 36th Ave., Denver 11

Intermediate Clerk-Stenographer ... Sharon Phelps Clerk-Stenographer Sara M. Smith

BOARD OF EXAMINERS FOR COAL MINE OFFICIALS

Thomas Allen, Chief Inspector - 306 State Services Bldg., Denver 3 Fred W. Whiteside, E.M., Secretary - 356 Lafayette St., Denver 18 Walter E. Gert, P.O. Box 31, Meeker Frank Kolar, Jr., 2028 W. 9th Street, Longmont Mathew J. Mlakar, P.O. Box 271, Somerset

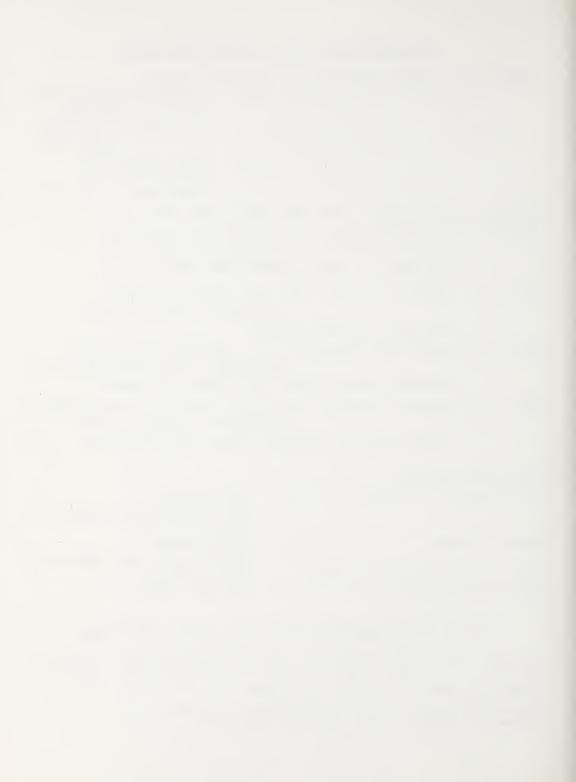
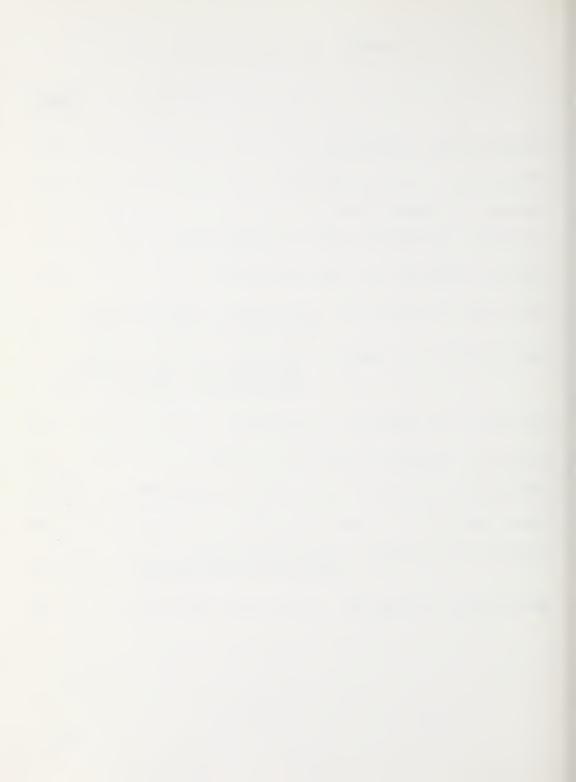


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INTRODUCTORY COMMENTS

Coal production has been declining during the last eight years throughout the United States, but Colorado has been fortunate in showing an increase during the last two years comparable to the tonnage of 1952, showing an increase of 330, 886 tons over 1959.

An increase of almost 17,000 tons of coal were furnished from two mines by conveyors direct to power plants, and the tonnage more than doubled from the strip mine in Montrose County that supplies coal by truck to the power plant near Nucla.

The four Deputy Inspectors are to be commended for the splendid work done throughout the year. In addition to more than the minimum of four (4) inspections per mine each year, over 200 check inspections were made for compliance with recommendations made for increased safety or violations of the State Coal Mining Laws. The Inspectors investigated over 100 complaints made against mine management and officials from written and verbal statements. It is recommended that future complaints be based on proven facts of violations, to prevent unnecessary time and expense to the department, but every effort will be made to correct well-founded accusations of unsafe practices.

No new mine fires occurred during 1960, but a constant check was made where old fires exist, some of which became reactivated. Seals were repaired or added where necessary to insure control. Three tipples were destroyed by fires: Joe's Mine in Routt County, Maitland #2 in Huerfano County and Vento Mine in Fremont County. The office of the Red Wing Mine in Moffat County was completely destroyed by fire.

The following members of the Board of Examiners for Coal Mine Officials were sworn into office in 1960:

Fred W. Whiteside, Denver, Engineer, appointed by Governor Steve McNichols; Walter E. Gert, Miner, Meeker, appointed by Judge C. H. Darrow of the 9th Judicial District; Frank Kolar, Jr., Official, Longmont, appointed by Judge William E. Buck of the 8th Judicial District; and Mathew J. Mlakar, Miner, Somerset, appointed by Judge George Kempf of District #7.

Examinations for officials were held on December 3, 1960 with 29 candidates in Trinidad and 35 in Denver. A list of successful candidates appears on page 28 of this report. There is a definite

need for more educational classes in all phases of coal mining practices, with emphasis on mine gases and ventilation.

The State Legislature created a Department of Natural Resources in 1957. In 1959, Governor Steve McNichols appointed Dr. Edward L. Clark as Director over 17 agencies including this department. The Director of Natural Resources, qualified in mining experience, is also the Commissioner of Mines.

The increasing number of requests for information of coal reserves in this State, historical records and maps of mines and coal fields, stresses the importance of research work in readily accessible form, for future developments of industries dependent on coal.

HONOR ROLL FOR 1960 - 50,000 or more man-hours per injury.

	·		Non-	Man-Hours
Mine	Company	County	Fatal Fatal	Per Injury
Allen	C.F. & I. Corp.	Las A.	2	269,697
Frederick	C. F. & I. Corp.	Las A.	4	139,907
Eagle	Imperial Coal	Weld	1	100,953
Sterling	McNeil Coal Corp.	Weld		50,141

HONORABLE MENTION - 20,000 to 50,000 man-hours per injury

				Non-	Man-Hours
Mine	Company	County	Fatal	Fatal	Per Injury
Edna Strip	Edna Coal Co.	Routt			49,931
Bear	Bear Coal Co.	Gunnison	ı	1	44,141
Boulder Val.#	3Boulder Valley Coal	Weld		2	43,473
Washington	Clayton Coal	Weld		5	39,514
Somerset	Minerals Dev. Corp.	Gunnison	ı	3	38,772
Dutch Creek	Mid-Continent C & C	Pitkin	1	2	37,278
Red Wing	Colowyo Coal	Moffat		2	34,025
King	Juanita Coal & Coke	Delta		1	33,200
Hawk's Nest	Champion Coal Mng.	Gunnison	1		33,172
ThompsonCr.#	2Thompson Crk. C&C	Pitkin		1	31,544
Imperial	Imperial Coal	Weld		1	25,862
ThompsonCr.#	Thompson Crk. C&C	Pitkin		7	23,109
Osage Strip	P & M Coal Mng.	Routt		3	23,601
Cardinal	Dry Creek Coal	Routt		1	22,502

SUMMARY OF FIELD WORK

Number of inspections	668				
Number of check inspections	211				
Complaints investigated	103				
Mines closed for non-compliance with					
recommendations	19				
Fatal accidents investigated	2				
Examinations for Shot Firer	21				
Suspension of official's certificates					

FINANCIAL STATEMENT FOR THE CALENDAR YEAR RECEIPTS

RECEIPIS		
Cash Balance, January 1, 1960		\$ 2,859.39
Coal Tax	\$25,908.80	
License Fees	5,510.00	
MiscSale of Law Books & Old Equip.	690.44	
General Fund Appropriation	36, 069.37	
Total		68, 178. 61
1041		\$71,038.00
EXPENDITURES		ψ11, 030. 00
Salaries-Field, Office, Brd. of Examiners	51,748.99	
Travel-Hotel, Meals, Gasoline, etc.	5, 482.05	
Equipment-Field & Office	2,198.39	
Workmen's Compensation	1,391.00	
Telephone & Telegraph	1,159.16	
Rent-Field & Office	1,042.59	
Maintenance & Repair of Equipment	989.43	
Supplies-Field & Office	550.70	
Postage & Express	394.99	
Printing	329.07	
MiscCar Insurance, Surety Bonds,		
Blueprints, Janitor Service	266.39	
Total		65, 552. 76
Cash Balance, January 1, 1961		\$ 5,485.24

GENERAL SUMMARY OF THE COLORADO COAL STATISTICS FOR 1960

124 3, 624, 572		2,051 10.4 170 29,721	
MINES REPORTING PRODUCTION - Mechanized 84, Pick 32, Strip 8 3,6 PRODUCTION IN SHORT TONS SIZES SIZES GRADES Sizes Mine Run 881, 238 Bituminous 752, 594 Lump 193, 645 Pea 773, 549 Sub-Bituminous 752, 594 Lump 69, 328 Slack 1, 567, 838 Rege 122, 673 Miscellaneous 16, 301	nes 1, C	SHIPMENT AND DISPOSAL Shipped by rail 2,625,992 Cameo to Public Service Shipped by truck 893,917 Oliver #3 to Western Colo. Power 3,822 Used for power and heat at the mines 104,663 Shipped out of State 750,936 MEN EMPLOYED (Average number) Underground 1,538 Surface 396 Strip 117 DAILY PRODUCTION PER MINER DAYS WORKED (Average number per mine) DAILY CAPACITY OF ALL MINES (as reported) UNDERGROUND MECHANICAL & ELECTRIC EQUIPMENT - See pages 24 and 25 MINING MACHINERY - Electric Undercutting 193 Electric Drills 278 Electric Shearing 1	MECHANICAL LOADERS - Shakers 121 Mainline conveyors 27 Mobile 65 Chain conveyors 32 Power shovels 2 Portable conveyors 1 CONTINUOUS MINING MACHINES - Undercutting and loading - 17

													44	407	39	Н			29	21		47					
Shuttle Cars 78						Airdox	7 IIIIIIES							Showers	chines				Chemox)			Coal Slopes				5	
Shuttle		s 5	က	6	17	Cardox	saumer		67				Box car loaders	Bath houses 24,	Rock dusting machines	rams			McCaa &			72 Cos	10,071			Children	
Hoists Electric 105		Power shovels	Scarifiers	tors	ks				Flootnio	תופכנו זר			Box car	Bath ho	Rock du	Aerial trams			oaratus (I			Drifts	Tons of coal washed	8		0	
•	-	Powe	Scar	Tractors	Trucks	Dynamite	40,000	40,031	c	. נ	53	38	12	air 11	20	2s 1			hing app			s 4	s of coa	Roof-bolted		ows 2	
Electric Trolley 83 Electric Battery 55 Electric Can 3 377	ic Cap 9, 91	വ	rs 8	6	4	Special	000	099, 900	Ctoom	oteann	Mechanical	Force	Steam plants	Compressed air	Surface	Gravity Planes			Oxygen breathing apparatus (McCaa & Chemox)	Gas Masks		Rock tunnels 4		Roof		Widows	
Locon Electr Electr		Drag lines	Jackhammers	.ls	Loaders	ible	000	0.0	66	_		28	7	196	39	192	33				ported)	17	242,639	23		2 5	28
.RY - fety 467	EQUIPMEN	Dra	Jack	Drills	Loa	Permissible	000,000	40,700 ANFOIIS	THE COLUMN			Exhaust			Air Compressors: Underground		tions				ION (As Re	Rock slopes	lly treated	n railroads	e 27	Fatalities	Non-Fatals
HAULAGE MACHINERY -	HINERY &	11	9 8.	ors 6	က	(Pounds)	na mmes	MISCELL	THEOREM	a.s		fans: Ex	ing plants	Hectric	ressors: U	70	Battery Charging Stations	UIPMENT	ers 358	ιΩ	NFORMAT	s 5 R	al chemica	mines: O	See Pag		4
HAULAGE	STRIP MACHINERY & EQUIPMENT	Bulldozers	Caterpillars	Compressors	Carryalls 3	EXPLOSIVE	Underground mines	SUIDEACE & MISCELLANFOIIS	Hoists.	minists. das	Tipples: G	Ventilation fans:	Coal washing plants	Pumps: Electric	Air Compr	Telephones	Battery Cl	SAFETY EQUIPMENT	Self-rescuers	Inhalators	GENERAL INFORMATION (As Reported)	Shaft Mines	Tons of coal chemically treated	Number of	ACCIDENTS	Total number:	

DIRECTORY

COMPANY	ADDRESS	MINE	ADDRESS	COUNTY
Alvidrez Coal Annex Coal Annex Coal Baca-Vigil Coal Baldy Coal	Florence '' Valdez Trinidad	Black Knight #3 Annex Annex #2 Baca-Vigil Baldy #2	Same	Fremont '' Las A.
Barstow, Aul & Peterso Bear Coal Beer Coal & Const. Inc Bendetti, Henry & Loui Berwind Canyon Coal	Somerset c.Florence isGlenwood Spgs.	Blue Flame Bear Beer Strip New South Canon Berwind Canyon	Same	Mesa Gunnison Fremont Garfield Las A.
Bisulco, Alex Black Beauty Coal Blue Blaze Coal Blue Ribbon Coal Boulder Valley Coal	Aguilar Walsenburg '' Paonia Denver 2	Bisulco Black Beauty Black Hawk #2 Blue Ribbon Boulder Valley#3	Same '' '' '' Dacono	Las A. Huerfano '' Delta Weld
Bowman Coal Brodhead Coal Brooks, Ira T. C.F.&I. Corp. C.F.&I. Corp.	Trinidad '' Cedaredge Pueblo ''	Bowman's Brodhead #4-A Green Valley #2 Allen Frederick	Same '' '' Weston Valdez	Las A. Delta Las A.
Caldirola Fuel Can. Blk. Diam. Coal Canon National Coal Canon Oak Creek Coa Casias, Eloy	Florence '' al'' Trinidad	Caldirola #2 Can. Blk. Diam. Canon National Canon Oak Creek Berwind #4	Same	Fremont '' '' Las A.
Cason, Vernon Cedar Canon Coal Champion Coal Mng. Clarke Coal Clayton Coal	Durango Florence Somerset Palisade Denver 2	Blue Flame Cedar Canon Hawk's Nest Winger Lincoln	Same '' '' '' Erie	La Plata Fremont Gunnison Mesa Weld

				INGS			SEA	M
Superintendent R.R.	Daily Cap.	Shaft Depth		Rock Tunnel ngth	Drift	<u>Ft</u> .	<u>In.</u>	Pitch %-
C. Alvidrez Nickie Rocchio Nickie Rocchio Pete Vigil D. A. Johnson	15 33 12 5 6				Yes Yes Yes Yes	4 6 4 5	4 6	3° 7% 2%
W. S. Barstow W. A. Bear D&RG Lloyd J. Beer Henry Bendetti Ole Madsen	20 475 100 25 12	STR	ΙΡ	300 30	Yes Yes	5 6 3 5 4	6 6 10	3% 3-4% 7% 57°
Sam Gonzales Mariano Pesina Albert Amiday Dean Allen Thomas Harris U.P.	7 14 10 20 $1,000$	245			Yes Yes	4 4 2 6 7	8	6% 2% 4% 5%
John Bowman Sam Vasquez Ira T. Brooks L. W. Ingles C&W F. C. Bennett C&W		1,	150 , 578(E)) (W	Yes Yes Y) Yes Yes	2 3 5 5 3-4	10 6 6	3% 3% 2-30%
Fred Del Duca Frank Yellico Raymond Jermance John E. Griffin Eloy Casias	50 75 100 3 10		480		Yes	4 6 5 5 4	8 7 10 6	5% 6% 35° 1%
Vernon Cason Charles Farrington Ralph Audin D&RO R. M. Clarke Wm. Ferguson U.P.	8	1,	300		Yes Yes	6 6 8 4 9	6	2% 2% 5%

COMPANY	ADDRESS	MINE	ADDRESS	COUNTY
Clayton Coal Coal Crk. Can. Mng. Coles, W. E. Colowyo Coal Corley Co., The	Denver 2 Florence New Castle Denver 2 Colo. Spgs.	Washington Coal Creek Canon New Castle-Vulcan Red Wing Corley Strip #1		Weld Fremont Garfield Moffat Fremont
Corley Co., The Corley Co., The Corley Co., The Delcarbon Coal Double Dick Coal	Colo. Spgs. """ "" Walsenburg Florence	Pioneer Canon #1 Pioneer Canon #2 Superior Strip Calumet #2 Double Dick	Florence '' '' Same	Fremont '' '' Huerfano Fremont
Dry Creek Coal Eagle Head Coal Edna Coal Edna Coal Ellis Coal	Hayden Gr. Junction Denver 2 Denver 2 Somerset	Cardinal McGinley Edna Strip Navajo Strip Black Beauty	Same "Oak Creek Nucla Same	Routt Mesa Routt Montrose Gunnison
Emmons Bros. Coal Fogg, Lyndon H. Four Mile Coal Franceville Coal Garcia, Joe M. & Della	Paonia Cedaredge Glenwood Spgs. Colo. Spgs. Trinidad	Emmons Red Canon #1 Four Mile Franceville Strip Anchor #2	Same	Delta '' Garfield El Paso Las A.
Golden Quality Coal Grey Creek Coal Guadagnoli Bros. Haas, William, Jr. Hayden Coal	Canon City Trinidad '' Rifle Hayden	Golden Quality#4 Grey Creek #4 Engleville Black Raven Babson	Same	Fremont Las A. "" Garfield Routt
Hay Gulch Coal Hesperus Coal Hunt, William M. Imperial Coal Imperial Coal	Hesperus Hesperus Durango Denver 2 Denver 2	Hay Gulch #2 Hesperus #4 Burnwell #1 Eagle Imperial	Same " Hesperus Erie "	La Plata '' '' Weld ''

			OPE	SEAMS					
Superintendent R	. R.	Daily Cap.	Shaft Depth		Rock Tunnel agth	Drift	<u>Ft</u> .	<u>In.</u>	Pitch %- 0
William Ferguson	U, P.	1,200	430				9		
Steve Kopic		50				Yes	4	6	5%
Coles, W. E.		50			1,400		7		480
J. Arthur Haske		900		125			23		3-6%
T. E. Shelnutt		600	SI	RIP			8	4	8%
T. E. Shelnutt		600		200			5		8%
T. E. Shelnutt		500				Yes	8		
T. E. Shelnutt		43	SI	RIP			3	6	6%
	&RG	100		700			4	2	4%
Joe Rohar		100					5	11	7%
E. R. Todd		300				Yes	12		7%
Bryan Nichols		12				Yes	7		
U U	&RG	1,800		RIP			4		6°
A. R. Ross		400	ST	RIP			5		5%
Ellis Axelson		85				Yes	10	6	
Maurice Emmons		30					8	6	6%
Lyndon H. Fogg		30		350			4	6	6%
R. C. Martin		20		350			8		40°0
L. F. Gordley		50	ST	RIP			6 - 7		
Joe M. Garcia		3					5	6	
Dominic Carestia		75				Yes	6	6	3%
Lawrence Rivera		10				Yes	3	6	3%
Charles Guadagnoli	•	10				Yes	9	6	0
William Haas, Jr.		15				Yes	22		67 ⁰
Shirl Prewitt		9				Yes	10		16%
W. C. Hunt		6				Yes	6		3°
Joe De Luzio		10				Yes	9	1	4%
William M. Hunt		10				Yes	4	6	
	. P.	1,500	370				9		$1\frac{1}{2}\%$
Frank Kolar U	. P.	900	300				10	6	

COMPANY	ADDRESS	MINE	ADDRESS	COUNTY
Iuppa, Albert & Son Jenkins, & Mathis Coal Joe's Coal Joe's Coal Juanita Coal & Coke	Raton, N. M. Oak Creek	Starkville #4 Rienau Delagua #4 Joe's King	Same '' Trinidad Same ''	Las A. Rio Bl. Las A. Routt Delta
Kerr Coal King Coal Leader Coal Liberty Mining Lovisone & Colarelli	Cameo Hesperus Sopris Canon City	Cameo King Leader #3 Canon Liberty#3 L & C #2	Same	Mesa La Plata Huerfano Fremont
Major Coal, Inc. Martinez, Albert Mathews, John Mays, W. E. McNeil Coal Corp.	Walsenburg Cokedale Oak Creek Hesperus Denver 2	Pioneer Martinez Johnnie's Burnwell #2 Sterling	Same " " " Dacono	Huerfano Las A. Routt La Plata Weld
Mid-Continent C. &C. Minerals Dev.Corp.Col Minerals Dev.Corp.Col Montez, Genaro Montoya Brothers	oSalt LakeCity, U	Dutch Creek J.Oliver #3 Somerset Delagua #3½ Aguilar-Imperial	Same Somerset Same	Pitkin Gunnison Gunnison Las A.
Morning Glory Coal Moschetti, N. J. Nix, Ammon E. North Fork Coal Nu-Mine Coal	Walsenburg Canon City Nucla Denver 2 Gunnison	Morning Glory Canon Zenith #2 Independence Edwards Nu-Mine #2	Same '' '' Somerset Same	Huerfano Fremont Montrose Gunnison
P & M Coal Mng. Pantazes, Pete Paterson, Mack R. Peacock Coal Peacock Coal	Steamboat Spgs Aguilar Fruita Durango Trinidad	Osage Strip Prosperity #2 Hy-Grade Peacock Peacock	Same	Routt Las A. Mesa La Plata Las A.

		OPENING			SEA	M
Superintendent R.R.	Daily Cap.	Shaft Rock Rock Depth Slope Tunn Length	el <u>Drift</u>	<u>Ft</u> .	In.	Pitch %-0
Albert Iuppa, Jr.	38	300		5		
William Jenkins, Jr. Joe Sonchar, Jr.	30 8		Yes	18 5		18 ⁰
Joe Petranovich	7		Yes	5	8	6%
Robert F. Bowie D&RG	300			16		7%
Harold J. Kissell D&RG		95		6		3 ⁰
Irvin A. Smith Charles E. Langowski	25 8		Yes Yes	6 4		5%
Frank Adamic	50	2,500		3	4	6%
Ted Colarelli	13			4	8	12%
Louis Bellotti	25	25		5	4	25%
Albert Martinez John Mathews	2 5			2 4	4 8	$4\frac{1}{2}\%$
W. E. Mays	23		Yes	5-6		3%
A. W. Newcomb U.P.	550	358		7	11	
Ed Selan D&RG	1,200		Yes	6	8	14 ⁰
Fritz Nyman D&RG Fritz Nyman D&RG	250 1,000		Yes	7 8-9		6% 6%
Genaro Montez	3		Yes	5		
Leo Montoya, Jr.	25		Yes	6	6	2%
G. M. Turner D&RG	175		Yes	4	6	- ~
Nick J. Moschetti A. E. Nix	$\frac{20}{10}$		Yes	3 4	2	5% 5%
C. E. Pauley D&RG	175		Yes	6		
Joseph E. Partch	150		Yes	6		3%
T. C. Dewey D&RG		STRIP		8		-0
Pete Pantazes Mack R. Paterson	$\frac{4}{20}$			2 3	6	7 ⁰ 15%
G. M. Gale	15		Yes	6	U	2-3%
Eugene Lopez	25		Yes	6		

COMPANY	ADDRESS	MINE	ADDRESS	COUNTY
Peerless Coal Phillips, H. B. Pilcher, Oren A. Prendergast, & Son Rapson Coal	Durango Palisade Mancos New Castle Walsenburg	Peerless Gearhart Coal King #2 Rex Rapson #2	Same	La Plata Mesa La Plata Garfield Las A.
Rasmussen, William Red Ash Coal Red Glow Coal Rex Carbon Fuel Rosebud Coal Sales	Hesperus Walsenburg Aguilar Florence Denver 2	Rasmussen Maitland #2 Red Glow Rex Carbon Rosebud Strip	Same '' '' '' Coalmont	La Plata Huerfano Las A. Fremont Jackson
Routt Mining Corp. Rugby Coal Salazar Coal Silengo Coal Smith, A. G.	Oak Creek Trinidad '' Canon City Gunnison	Keystone Rugby #6 Starkville #7 Canon Monarch#4 Baldwin	Same Pryor Same	Routt Huerfano Las A. Fremont Gunnison
Smith Coal Staples, S. L., Jr. States Coal Strainer Coal Sullivan Coal	Trinidad Gunnison Cedaredge Canon City Oak Creek	Berwind #5 Ohio Creek #2 Top Canon Wolf Crk.# Apex	Same '' 2 ''	Las A. Gunnison Delta Fremont Routt
Supancic, Louis Thompson Crk. C&CCorp Thompson Crk. C&CCorp Thompson Crk. C&CCorp Thompson Crk. C&CCorp	Denver 3 Denver 3	River View ThompsonCrk.#1 ThompsonCrk.#2 ThompsonCrk.#3 ThompsonCrk.#5	ff ff	Mesa Pitkin '' Pitkin
Tolley, C. A. & Eileen Tomahawk Coal Twin Pines Coal Vento Coal Victory Coal	New Castle Delta Canon City Florence Durango	Harvey Gap #3 Tomahawk Twin Pines Vento Victory #3	Same	Garfield Delta Fremont '' La Plata

			OPENINGS			SEA	MS
(Superintendent R.R.	Daily	Shaft Rock Rock Depth Slope Tunnel	<u>Drift</u>	Ft.	In.	Pitch
		Cap.	Length				%-0
	Everett Bixler	15		Yes	4	6	10%
	H. B. Phillips	30		Yes	5	J	10/0.
b	Oren A. Pilcher	10		Yes	6	6	
	F. L. Prendergast	10		Yes	8	0	$32^{\rm O}$
	James Christy	40	2,200	100	5		12%
ì	bannes On isty	-10	2,200		· ·		12 /0
ij	William Rasmussen	15		Yes	5	6	4%
	Clarence Clair	75		Yes	4	6	5%
	Clifford Smith	2		Yes	3	8	7%
	Frank Sacchetta	70	450		3	10	12%
	Mike Evans U.P.	3,000	STRIP		10	10 1	5-45 ⁰
	Carl Steele D&RG	22			5	10	17%
	Clyde S. Dawn	6	150		4		$13^{\rm O}$
	John Salazar	19		Yes	4		
i	Charles L. Silengo	65		Yes	5	6	10%
į	A. G. Smith	10		Yes	6		
							0
	Frank Smith	5		Yes	6	6	1 ⁰
	S. L. Staples, Jr.	7		Yes	5		5%
	W. W. States	30	180		7		6%
	Anton Strainer, Jr.	30		Yes	6	6	3%
	Robert L. Sullivan	30		Yes	4	8	7%
							= 04
	Louis Supancic	25		Yes	6		5%
	Andrew Allan	500		Yes	7		$30^{\rm O}$
	Andrew Allan	100		Yes	7		$30^{\rm O}$
	Andrew Allan	250		Yes	9		0
	Andrew Allan	15		Yes	9		$30^{\rm O}$
	C. A. Tolley	20		Yes	7		45 ⁰
	Gene Yellico	60		Yes	11		6%
	Budgie C. Fazzino	45		Yes	5	6	4%
	Tony Vento	100		105	5	10	1 /0
	William Gerard	125		Yes	6	10	5%
	William Gerard	140		105	U		5 /0

COMPANY	ADDRESS	MINE	ADDRESS	COUNTY
Vista Coal White River Fuel Wright Fuel Zellitti, F.,N., & C.	Walsenburg Vernal, Utah Hesperus Durango	Gordon White River Wright #1 Morning Star	Same Rangely Same	Huerfano Rio Bl. La Plata

				OPE	NINGS		5	SEA	MS
Superintendent	RR	Daily	Shaft Depth	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Rock Tunnel	Drift	Ft	In	Pitch
	1(. 1(.	Cap.	Берин	Len		DITT	10.	AIII.	%-0
Jamas Ludvis	D&DC	150					1		5 ⁰
James Ludvig	D&RG						4	_	
Robert Staley		55				Yes	10	7	8%
Glen Wright		14				Yes	5		3%
Frank Zellitti, Jr	•	20				Yes	5	10	7%

REPORT OF PRODUCTION

BY MINE BY COUNTY ŧ ACCIDENTS MEN, DAYS,

COUNTY		No. Men	Total		ACC	ACCIDENTS
MINE	COMPANY OR OPERATOR	Average	Days	TONNAGE	Fatal	Non-Fat.
DELTA						
Blue Ribbon	Blue Ribbon Coal	4	116	2,920		1
Emmons	Emmons Brothers Coal	2	231	6,965		
Green Valley #2	Brooks, Ira T.	4	211	8, 177		
King	Juanita Coal & Coke	23	165	41,555		
Red Canon #1	Fogg, Lyndon H.	4	196	4,627		
Tomahawk	Tomahawk Coal	4	103	3, 454		
Top	States Coal	က	141	2,200		
TOTALS - 7		49	1,163	69, 898	đ	1
EL PASO			1			
Franceville Strip	Franceville Coal	က	159	3,883		
TOTALS - 1		က	159	3,883	i	9
FREMONT						
Annex (Clsd.)	Annex Coal	73	104	3, 438		1
Annex #2	Annex Coal	77	116	1,419		
Beer Strip	Beer Coal & Const., Inc.	က	235	25, 584		
Black Knight #3	Alvidrez Coal	4	306	6,269		1
Caldirola #2	Caldirola Fuel	4	259	9, 735		
Canon Black Diamond		9	203	19,617		-1
Canon Liberty #3	Liberty Mining	4	185	6,235		
Canon Monarch #4	01	വ	232	17, 117		
Canon National	Canon National Coal	9	278	15,206		
Canon Oak Creek	Canon Oak Creek Coal	23	65	138	_	

Callon Woll Oreek #2	ou alliel Coal	_	1).).T	5, 692		
Zenith #2	Moschetti, N. J.	4	252	3, 110		
Cedar Canon	\circ	9	255	12, 969		2
Coal Creek Canon	Coal Creek Canon Mining	2	227	12,675		
Corley Strip #1	Corley Company, The	2	24	4,025		
Double Dick	Double Dick Coal	2	232	7, 129		
Golden Quality #4	Golden Quality Coal	4	232	16,870		1
L & C #2	Lovisone & Colarelli	2	182	2, 452		
Pioneer Canon #1	Corley Company, The	13	129	18, 211		
Pioneer Canon #2		12	206	63,004		2
Rex Carbon	Rex Carbon Fuel	4	253	11,990		
Superior Strip	Corley Company, The	2	23	981		
Twin Pines	Twin Pines Coal	2	256	10,812		1
	Vento Coal	6	254	25, 704		က
TOTALS - 24		124	4,685	300, 382		12
SARFIELD	Hood William In	G	109	696 6		
Four Milo	-		100 100 100			
rour mile Harvev Gan #3	Four Mile Coal	71 4	171	2,00%		
New Castle-Vulcan	W E	r co	106	2,289		1
New South Canon	Bendetti, Louis & Henry	4	285	3, 838		1
	ast & Son	2	123	492		
TOTALS - 6		18	1,163	15,290	1	2
GUNNISON						
Baldwin	Smith, A. G.	က	200	206		
	Bear Coal	36	141	48, 290		
Black Beauty	Ellis Coal	2	159	11,857		
Edwards	North Fork Coal	11	172	22, 781		
Hawk's Nest	Champion Coal Mining	25	152	34,662		
Nu-Mine #2	Nu-Mine Coal	10	226	17, 153		
Ohio Creek #2	Staples, S. L., Jr.	ಣ	265	2,622		
Oliver #3	Minerals Dev. Corp. of Colo.	23	29	12, 297		
Somerset	Minerals Dev. Corp. of Colo.	78	171	121, 717		3
TOTALS - 9		196	1 545	986 646		LC

COUNTY		No. Men	Total		ACC	ACCIDENTS
MINE	COMPANY OR OPERATOR	Average	Days	TONNAGE	Fatal	Non-Fat.
HUERFANO						
Black Beauty	Black Beauty Coal	4	227	2,311		1
Black Hawk #2	Blue Blaze Coal	73	83	377		1
Calumet #2	Delcarbon Coal	20	160	17, 522		
Gordon	Vista Coal	9	213	11,005		
Leader #3 (Clsd.)	Leader Coal	73	49	358		
Maitland #2	Red Ash Coal	10	208	11,972		1
Morning Glory	Morning Glory Coal	11	200	14, 329		
Pioneer	Major Coal Co., Inc.	4	229	2,116		1
Rugby #6	Rugby Coal	2	89	1, 198		1
TOTALS - 9		64	1,458	61, 188	-	2
JACKSON						
Rosebud Strip (Clsd.)	Rosebud Coal Sales	17	206	169,903		
TOTALS - 1		17	206	169,903	GI .	ŧ
LA PLATA						
Blue Flame	Cason, Vernon	73	40	389		
Burnwell #1	Hunt, William M.	7	206	2,655		
Burnwell #2	Mays, W. E.	72	09	682		
Coal King #2	Pilcher, Oren A.	23	188	1,857		
Hay Gulch #2	Hay Gulch Coal	1	210	1,127		
Hesperus #4	Hesperus Coal	SI	180	996		
King	King Coal	က	218	4, 713		1
Morning Star	Zellitti, F., N., & C.	77	217	2, 363		
Peacock	Peacock Coal	က	245	3,211		
Peerless	Peerless Coal	1	30	110		
Rasmussen	Rasmussen, William	23	191	2, 329		
Victory #3	Victory Coal	2	262	11, 477		က
Wright #1	Wright Fuel	2	99	1,120		
TOTALS - 13		29	2, 113	32, 999	ì	4

	2													4									7
																							1
928	450, 669	342	116	992	803	341	2, 262	512	189	757	188	230	1,682	219,857	1,210	457	5, 364	831	6,933	360	9,622	427	705,072
110	155	144	23	163	190	109	190	73	93	207	99	30	170	147	169	240	244	237	248	177	250	40	3, 475
60	363	2	က	က	က	က	വ	23	7	2	73	ಬ	23	435	4	1	2	က	2	2	10	2	869
Montoya Bros.	C. F. & I. Corporation	Garcia, Joe M. & Della	Baca-Vigil Coal	Baldy Coal	Casias, Eloy	Smith Coal	Berwind Canyon Coal	Bisulco, Alex	Bowman Coal	Brodhead Coal	Montez, Genaro	Joe's Coal	Guadagnoli Bros.	C. F. & I. Corporation	Grey Creek Coal	Martinez, Albert	Peacock Coal	Pantazes, Pete	Rapson Coal	Red Glow Coal	Iuppa, Albert & Son	Salazar Coal	
LAS ANIMAS Aguilar-Imperial	Allen	Anchor #2	Baca-Vigil (Clsd.)	Baldy #2	Berwind #4	Berwind #5	Berwind Canyon	Bisulco	Bowman's	Brodhead #4-A	Delagua $#3\frac{1}{2}$ (Clsd.)	₹!	Engleville	Frederick	Grey Creek #4	Martinez	Peacock	Prosperity #2	Rapson #2	Red Glow	Starkville #4	Starkville #7	TOTALS - 23

MINE CC MESA Balue Flame Ba		No. Men	Total		ACC	ACCIDENTS
Flame	COMPANY OR OPERATOR	Average	Days	TONNAGE	Fatal	Non-Fat.
	Barstow, Aul & Petersen	က	220	4, 396		
Cameo	Kerr Coal	46	241	92, 719		2
Gearhart Ph	Phillips, H. B.	9	140	3,027		
Hy-Grade Pa	Paterson, Mack R.	2	151	2,019		
McGinley Ea	Eagle Head Coal	က	207	1,658		
River View Sug	Supancic, Louis	က	170	2,008		
	Clarke Coal	အ	104	1,382		
TOTALS - 7		69	1,233	107,209	1	5
MOFFAT Red Wing Co	Colowyo Coal	38	172	125, 805		2
TOTALS - 1		38	172	125,805	ı	2
MONTROSE					*	
Independence	Nix, Ammon E.	က	114	923		
di	Edna Coal	12	191	79,895		
TOTALS - 2		15	305	80,818	ı	1
PITKIN						
Dutch Creek Mi	Mid-Continent Coal & Coke	61	247	251,865	-1	2
Thompson Creek #1 Th	Thompson Creek C. &C. Corp	. 85	239	125,750		7
Thompson Creek #2 Th	Thompson Creek C. & C. Corp	16	239	24, 553		7
Thompson Creek #3 Th	Thompson Creek C. & C. Corp	35	239	53, 766		5
Thompson Creek #5 Th	Thompson Creek C. & C. Corp	အ	132	1,590		
TOTALS - 5		200	1,096	457, 524	1	15
LANCO				,		
	Jenkins & Mathis Coal	က	235	6,570		1
r	White River Fuel	4	153	4,914		2.
TOTALS - 2		7	388	11,484	1	သ

ROITT						
Apex	Sullivan Coal	4	41	952		
Babson	Hayden Coal	2	89	209		
Cardinal	Dry Creek Coal	15	180	53,865		П
Edna Strip	Edna Coal	39	100	160,625		
Joe's	Joe's Coal	2	27	62		
Johnnie's	Mathews, John	2	75	171		
Keystone	Routt Mining Corp.	9	184	4,091		
Osage Strip	P & M Coal Mining	36	177	248, 935		က
TOTALS - 8		106	852	469, 325	-	4
WELD						
Boulder Valley #3	Boulder Valley Coal	45	226	129, 194		7
Eagle	Imperial Coal	63	199	260, 753		1
Imperial	Imperial Coal	15	148	59, 132		1
Lincoln	Clayton Coal	39	137	67,356		4
Sterling	McNeil Coal Corp.	26	185	80, 125		
Washington	Clayton Coal	29	211	144,946		2
TOTALS - 6		247	1,106	741,506	-	13
GRAND TOTALS - 124		2,051	21, 119	21, 119 3, 624, 572	23	78.

COAL SHIPMENT AND DISPOSAL

	1		POWER	OUT OF	CHEM
COUNTY	RAILROAD	TRUCK		OUT OF	CHEM.
COUNTI	IMILITORD	THOOK	& HEAT	STATE	TREATED
			(At Mine)		
Delta	35, 755	33, 838	305	21,055	11,654
El Paso		3, 883			
Fremont	9,688	290,624	70	5,436	220
Garfield		15,288	2		
Gunnison	217,616	50,098	4,572*	145, 663	45,538
Huerfano	13,233	47,955		14,500	6,862
Jackson	169,903			•	
La Plata		32,999			1,785
Las Animas	668, 143	33, 938	2,991	8, 296	
Mesa		15, 036	92,173**		1,271
Moffat	107,468	18, 337			59,699
Montrose		80, 818			
Pitkin	457, 524			457, 524	
Rio Blanco	3,276	8,208		3,980	8,553
Routt	428,620	40,670	35	94,482	82,566
Weld	514, 766	222, 225	4,515		24, 491
TOTALS	2,625,992	893,917	104,663	750, 936	242,639

^{*} Western Colorado Power Plant from Oliver #3, by conveyor 3,822 T.

^{**} Public Service Power Plant from Cameo, by conveyor 92,124 T.

SIZES, GRADES, BY COUNTY

MINE RUN	LUMP	EGG	OTHER GRADES	NUT	PEA	SLACK
15,888	18,608			3,802	659	30, 941
3,883						
149,628	17,454	20	984	8,063	5,695	118, 538
2,289	1,859		61	555		10,526
139, 119	33, 580	556		7,008		92, 023
1,334	10,027	11, 314	458	6,976	2,242	28, 837
55						169, 848
20,270	3, 861	11		1,016	2,123	5, 718
5,492	3,862	264	260	659	669, 314	25, 221
790	2,855	11	528	896	82	102,047
	16,709			25,932		83, 164
79,895	444			113		366
457, 524						
	1, 373	730		946		8, 435
5,071	33, 245	9,467	13,974	9,099	79,314	319, 155
	49,768	100, 300	36	4,263	14,120	573, 019
					.•	
881,238	193, 645	122,673	16,301	69,328	773, 549	1,567,838

MECHANICAL LOADING

		MECHANDICAL LOADERS									
		Chain Conveyors		Mainline		Mobile				TONS OF COAL	
COUNTY	Shaker Type	Short Face	Room Length	Belt	Chain	Track	Caterpillar	Power Shovel	tabl	TOTALLY LOADED BY MECHANICAL DEVICES (None or very little hand labor)	
Delta	3		1			4	3			56, 899	
El Paso											
Fremont	19	3	8		1		13	1		169,483	
Garfield		2				<u></u>			1		
Gunnison	14		1	3			11			268,757	
Huerfano	10		5		2					17,522	
Jackson											
La Plata	4										
Las Animas	25	1		10	3		10	1			
Mesa	15									92,719	
Moffat							3			125,805	
Montrose	1.0									50 500	
Pitkin	18	5	4	5			2			53, 766	
Rio Blanco	3	1		4			3			4,914	
Routt	6		1	1			3			58, 563	
Weld	4			2			13			70,070	
TOTALS	121	12	20	21	6	4	61	2	1	918,498	

COLORADO - 1960

		M	INING M	ACHIN	ERY			
TONS OF COAL HAND LOADED ONTO MECHANDICAL DEVICES	Undercutting	Electric Shearing	Combination Undercutting and Electric Shearing	Electric Drills	Compressed Air Drills	Continuous Miners	TOTAL TONNAGE	
	8		2	13			69,898	
							3,883	
81,960	35		1	43		1	300, 382	
	2			13	1		15,290	
	26		2	29			272,286	
22,393	26			14			61,188	
							169,903	
16,190	17			12			32,999	
14,608	12		5	28	75	3	705, 072	
6,228	20			17	1		107,209	
	3			6			125, 805	
	1			1			80, 818	
150, 303			,	28		3	457, 524	
6,570	4			7			11,484	
1,031	14			16			469, 325	
807	25	1	1	50		10	741,506	
300, 090	193	1	11	277	77	17	3, 624, 572	

Mined and Loaded by Continuous Miners:

Fremont County - 18,211

Las Animas County - 450,669

Pitkin County - 251,865

Weld County - 670,629

COAL PRODUCTION FROM 1864 THROUGH 1960

Year	Tonnage	Year	Tonnage	Year	Tonnage
1864	500	1896	3, 371, 633	1928	9,921,585
1865	1,200	1897	3,565,660	1929	9,934,064
1866	6, 400	1898	4, 174, 037	1930	8, 238, 094
1867	17,000	1899	4,826,939	1931	6,604,063
1868	10,500	1900	5, 495, 734	1932	6,616,525
1869	8,000	1901	6,021,405	1933	5, 284, 872
1870	4,500	1902	7,522,923	1934	5, 251, 003
1871	15,600	1903	7,775,302	1935	5, 953, 601
1872	68,540	1904	6, 776, 551	1936	6,868,801
1873	69,997	1905	8,989,631	1937	7,222,092
1874	77,372	1906	10, 308, 421	1938	5, 730, 291
1875	95, 838	1907	10,965,640	1939	6,002,125
1876	117,666	1908	9,773,007	1940	6,673,359
1877	160,000	1909	10,722,490	1941	7,008,037
1878	200,630	1910	12,104,887	1942	8,131,764
1879	322,732	1911	10, 197, 595	1943	8, 372, 683
1880	375,000	1912	11,016,948	1944	8,202,401
1881	706, 744	1913	9,268,939	1945	7, 656, 612
1882	1,161,479	1914	8,201,423	1946	5,928,823
1883	1,220,593	1915	8,715,397	1947	6, 381, 016
1884	1,130,024	1916	10,522,185	1948	5,682,512
1885	1,398,796	1917	12, 515, 305	1949	4,578,170
1886	1,436,211	1918	12,658,055	1950	4, 274, 887
1887	1,791,735	1919	10, 406, 543	1951	4, 111, 945
1888	2,185,477	1920	12,514,693	1952	3,643,523
1889	2,400,629	1921	9,141,947	1953	3, 598, 867
1890	3,075,781	1922	10,003,610	1954	2,922,365
1891	3,512,632	1923	10, 336, 735	1955	3, 366, 490
1892	3,771,234	1924	10,501,088	1956	3, 303, 661
1893	3,947,056	1925	10,440,387	1957	3, 324, 787
1894	3,021,028	1926	10,616,760	1958	2,972,191
1895	3, 339, 495	1927	9,781,580	1959	3, 293, 686
				1960	3,624,572

FATAL ACCIDENTS

Date	Name	Mine	County	Cause (Occupatio	n Age Exp.
1-19	John Murphy	Dutch Crk.	Pitkin	Haulage	Miner	41 1 mo.
9-2	Claude D. Harvey, Jr.	Hy-Grade	Mesa	Roof fall	Miner	51 5 yrs.

			FΙ	VE	YEAR COMPAR	ISIO	N			
	NON	-FAT	ALS				F	ATAI	JS	
1956	1957	1958	1959	1960	Causes of Injury	1956	1957	1958	1959	1960
9	9	9	12	15	Falls of roof	1		1	2	1
6	7	2	6	8	Fall of face or rib	1				
6	8	12	7	6	Falling objects					
5	5	4	4	9	Falls of persons			1		
12	8	11	7	13	Handling materials					
8	5	6	2	5	Hand tools					
	1	3	1	3	Striking vs objects					
10	15	15	1	12	Haulage					1
3					Explosion of gas					
5	1	1	3	1	Explosives					
4		1	1		Electricity					
13	14	17	8	4	Machinery					
1	2	4	2		Jack pipes					
1	1			1	R.R. cars					
1				1	Others					

	ACCI	DENTS ST	TATISTICS		
		Fata	lities	Non-F	atals
		1959	1960	1959	1960
Fatalities		2	2		
Non-Fatals/Con	mpensable			63	78
Per 1,000 emp	oloyed	0.103	0.98	32.39	38.03
Men employed per injury		973	1,026	30.87	26.29
Tonnage per injury		1,646,843	1,812,286	52,281	46,469
Per million tons		0.607	0.552	19.12	21.52
Dependents:	Widows	1	2		
	Children	3	5		

78 TOTALS

85 63

Successful Candidates in Examination for Coal Mine Officials December 3, 1960

Mine Foreman	
Abelin, Mangus	
Bendetti, Henry *	X
Corey, Pete	
Del Duca, Fred	
Emmons, John T.	
Emmons, Maurice	
Morrison, Archibald M	
*Pauley, Clarence E.	
Piccioni, Veloy Keith	
Silengo, Charles Louis	S
*Sonchar, Joe, Jr.	
Tiller, Clarence	
Wareham, Max	
Woolfe, George Edwar	d
Yourston, Robert E.	
,	

Fire Boss Beebe, Lloyd G. Biondich, Mathew *Carden, Bobby Ray De Angelis, Louis xDraper, Donald L. Felthager, Jack D. Felthager, James E. Garcia, Daniel Gillie, Henry D. Gilmore, Frank L.Jr. Gomez, Adeliadio *Griego, Alfred L. Iuppa, Albert, Jr. d Madrid, Pete *Martinez, Joe M. Milkovich, Steven Montoya, Milton *x Moser, Jack S. Pantazes, Nick Pete Pantazes, Tom Pete *Quintero, Trinidad

Roybal, Juan De J. Assistant Mine Foreman Safley, Deloy *Palomino, Charles Seeley, Lee Steele, Carl Duane *Steele, Gordon Tavella, John Fred *Torres, Jose Ricardo Vecellio, Albert Wardlaw, Raymond H. Mine Foreman White, Jack Virgil Mine Foreman

Additional Rating After Fire Boss Experience Mine Foreman

Assistant Mine Foreman Assistant Mine Foreman Mine Foreman Mine Foreman Mine Foreman Assistant Mine Foreman Assistant Mine Foreman Mine Foreman Assistant Mine Foreman Mine Foreman Mine Foreman Assistant Mine Foreman Mine Foreman Assistant Mine Foreman Mine Foreman Mine Foreman Mine Foreman

Mine Foreman Mine Foreman Mine Foreman Assistant Mine Foreman Mine Foreman

Urioste, Marcelino G. Assistant Mine Foreman Mine Foreman

*Hold for First Aid

xHold for Colorado Residence

Strip Pit Mine Foreman

Brown, Wendell W. Browner, Milton McKinney, Charles E.



